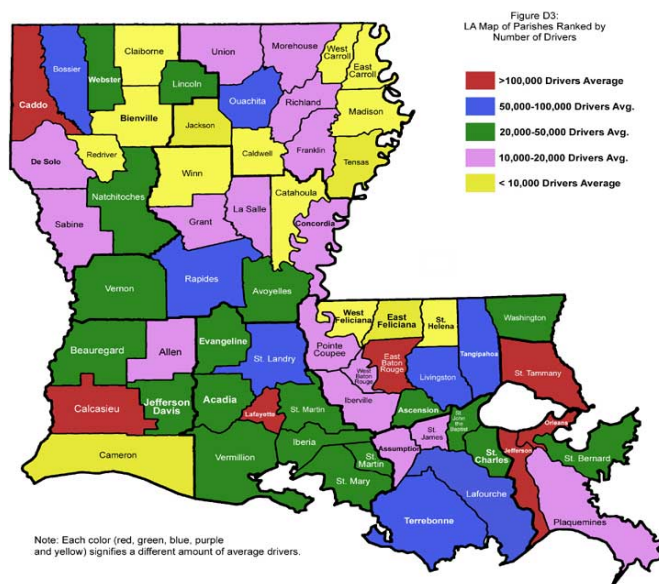


Analysis of 2008 Crash Data with Special Emphasis on Impaired Driving And Occupant Protection



Submitted to:
John LeBlanc
Executive Director
Louisiana Highway Safety Commission

By:
Dr. Helmut Schneider
Associate Dean for Research and Economic Development
Ourso Family Distinguished Professor of Information Systems
and Chairman of Information Systems and Decision Sciences at
Louisiana State University
Ph.: 225-578-2516
Fax: 225-578-2511
Homepage: <http://isds.bus.lsu.edu>

Table of Contents

1. Crash Overview	3
2. The Three Major Contributing Factors for Fatal Crashes.....	8
3. Conclusions and Recommendations.....	22

1. Crash Overview

In 2008 there were 818 fatal crashes with 913 fatalities, a decline of 8.1% compared to 2007. Louisiana also had 75.9 thousand injuries, in 46.5 thousand crashes and 110.6 thousand property-only crashes. While the injury crashes declined by 3.5%

Figure 1: Injuries per 1,000 Crashes

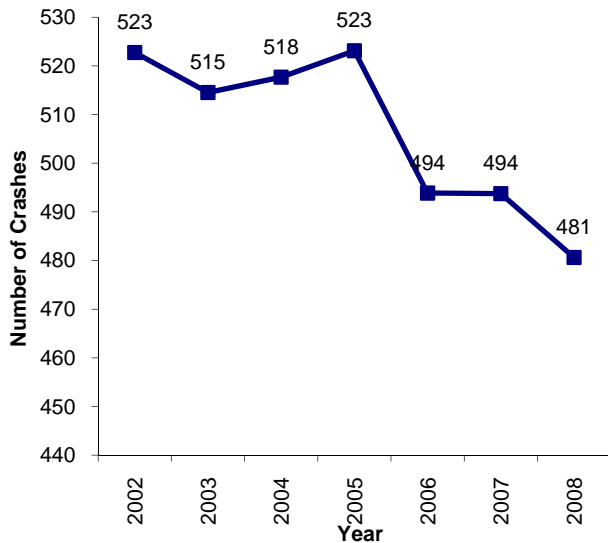
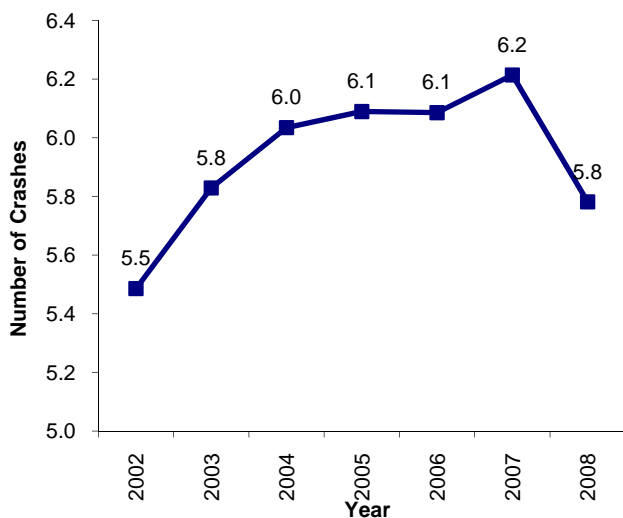
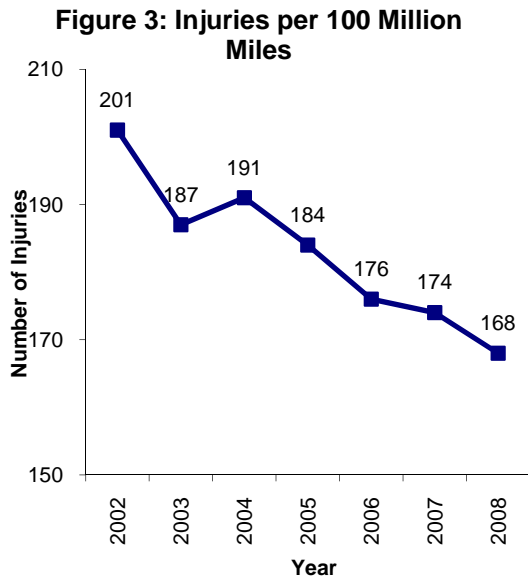


Figure 2: Fatalities per 1,000 Crashes



from 2007 to 2008, the property-damage-only (PDO) crashes showed no significant change from 2007 to 2008 (-0.1%). The total number of crashes declined by 1.2% from 2007 to 2008. The number of injury crashes per 1000 crashes has been declining over the past three years (see Figure 1). The injury rate (number of occupants injured per 1000 crashes) declined from 494 in 2007 to 481 in 2008, a 2.7% decrease. Since the 2.7% decline in the injury rate cannot be attributed to the overall decline in crashes of (-0.1%), other factors must have contributed toward the reduction in severity of crashes.

Louisiana also experienced a decline in the fatality rate (number of fatalities per 1000 crashes) from 2007 to 2008. In fact, as Figure 2 shows, this fatality rate has declined for the first time in the past seven years. Again, the decline in fatalities of 8.1% cannot be attributed to the overall decline in crashes. We will shed some light upon possible

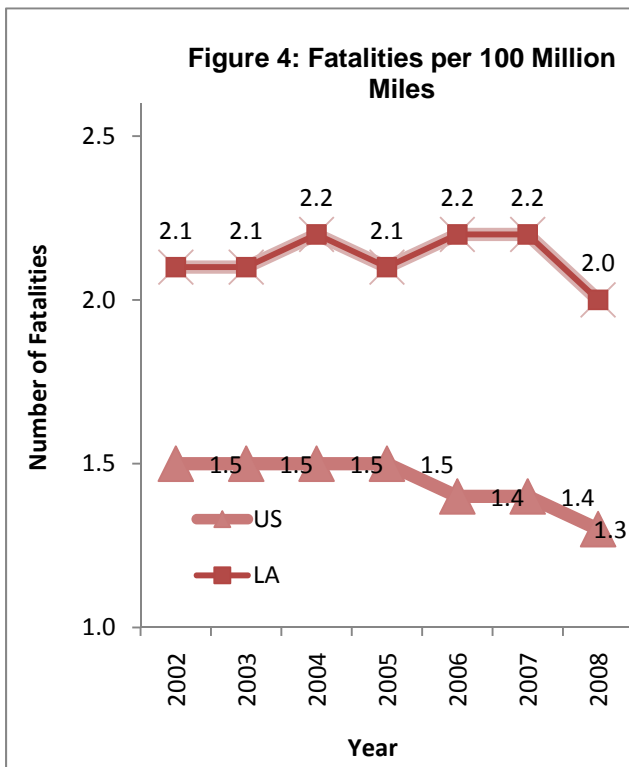


causes for the considerable decline in injuries and fatalities, paying special attention to seat belt use and DWI crashes. The decline in the injury rate over the past three years can be seen as a very positive sign, whereas the one-year decline in the fatality rate could be of a short-term nature. Nevertheless, studying the causes may help to pinpoint the potential successes of safety programs. Two other measures also indicate the decline in injuries and fatalities. Figure 3 illustrates the injuries per 100 million miles driven which

indicates a downward trend over the past seven years. Figure A4 shows the fatality rate per 100 million miles traveled. This rate has dropped to its lowest level (2.0) since Louisiana began calculating this statistic. However, there are indications that this rate may increase again slightly in 2009.

The overall cost of \$6.43 billion to the Louisiana citizens remains high. This is

\$2,264 for every licensed driver in Louisiana. A large proportion of the high insurance premiums in Louisiana can be attributed to the high costs for crashes. According to the National Association of Insurance Commissioners, Louisiana ranked first for auto insurance premiums per income among the 50 states and ranked consistently highest on the website www.insurance.com over the past three years. However, other factors also play a role in the high cost of auto insurance, factors such as the disproportionately high number of claims in law suits, claims which



are about three times higher than in neighboring states. The crash records also show that about 6% of uninjured occupants and 50% of occupants with severity “complaints” were transported by EMS to hospitals.

Areas of Above-Average Decline

While the overall average decline in fatal crashes was about 9%, there are some specific areas which had a much higher decline than the average:

- There was a 17% decline in interstate fatal crashes.
- Crash rate of drivers of ages 18-20 in fatal crashes declined by 34%.
- Female-driver fatalities declined by 20%.
- Rural Parishes with less than 10,000 licensed drivers had a decline in fatalities of 38%.
- There was a decline of 13% in female drivers involved in crashes (-7% for males).
- 18-20 year old drivers made up 7.2% of all drivers in fatal crashes in 2008 versus 9.8 in 2007.
- A decline of drivers ages 18-20 in alcohol related crashes from 12% in 2007 to 8% in 2008.
- Pickup trucks in fatal crashes had a decline of 19%.
- There were 11% fewer roll-over crashes in 2008.

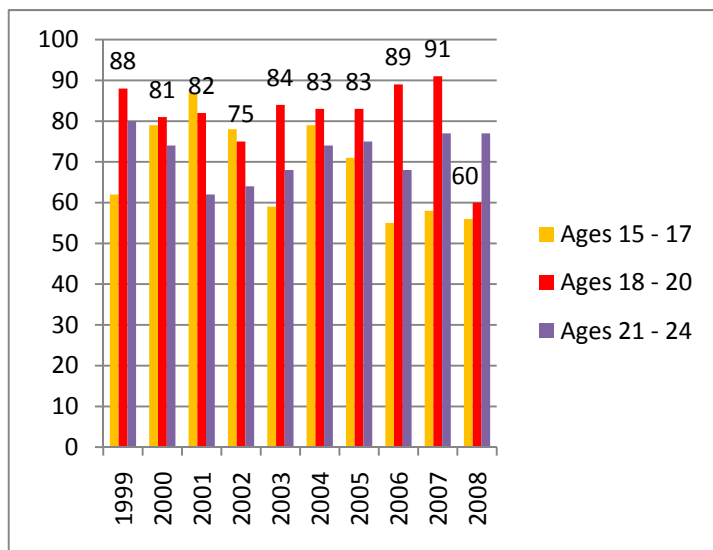


Figure 5: Youth Fatal Crash Rate

The fatal crash rate for youth (see Figure 5), ages 15-17, has been declining for the past three years, while the fatal crash rate of 18-20-year-old drivers has been steadily increasing. The exception for 18-20-year-old drivers is 2008 when the

crash rate dropped dramatically from 91 crashes per 100,000 licensed drivers in 2007 to 60 fatal crashes per 100,000 licensed drivers in 2008. The fatal crash rate of drivers ages 21-24 was 77 in 2007 as well as in 2008.

Figure 6: Fatal Crashes by Month 2008 versus 2007

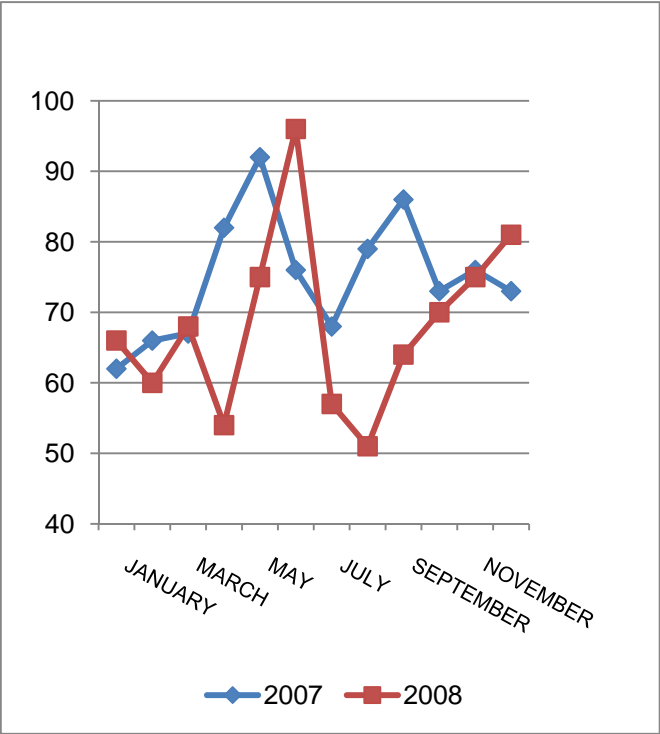


Figure 7: Crashes by Month 2008 versus 2007

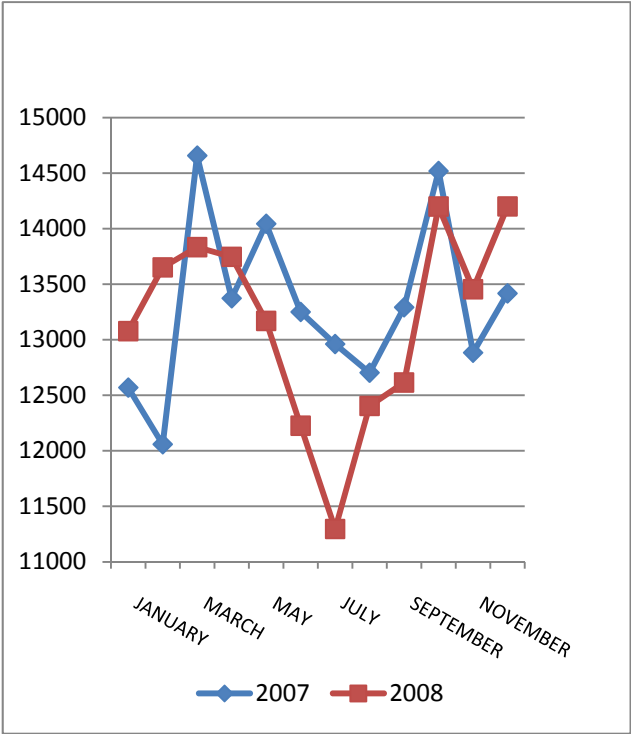
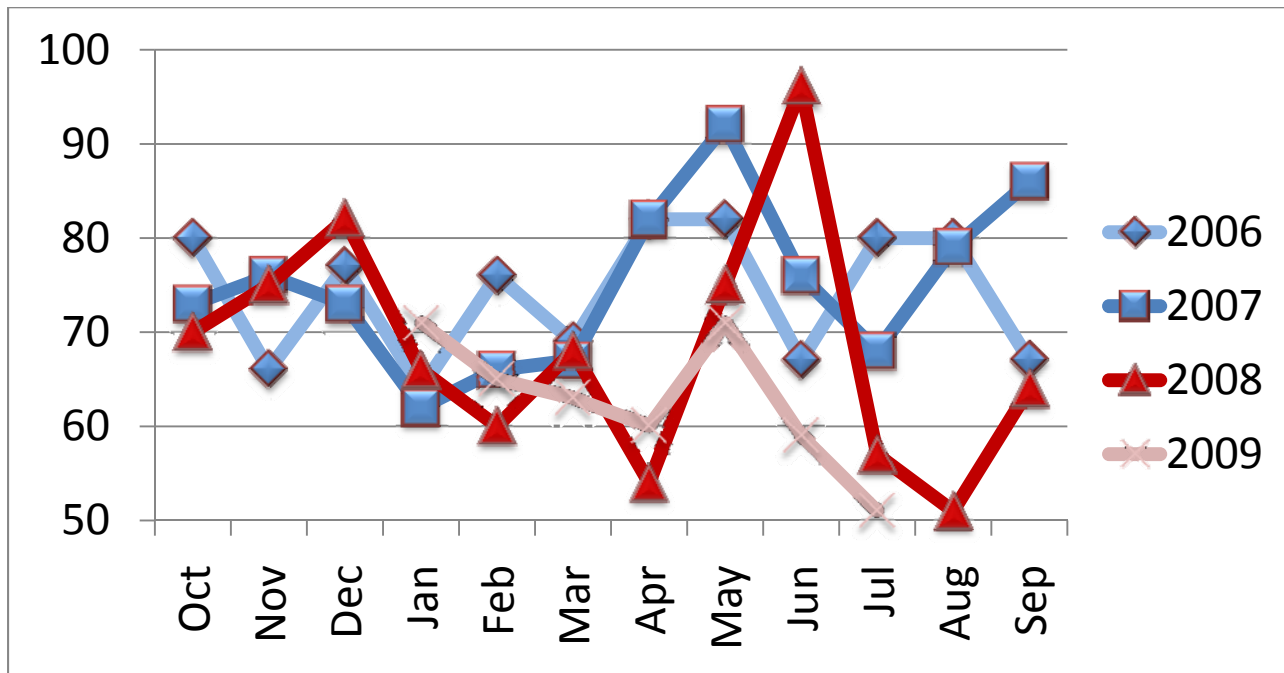


Figure 6 shows that most of the reduction in fatal crashes occurred during the summer months except for June. Figure 7, which shows all crashes by month, indicates that the months May to September, when gasoline prices in 2008 were very high, the number of crashes were considerably lower for 2008 compared to 2007. This may indicate that part of the decline in fatalities in 2008 was due to reduced leisure driving among youths with less discretionary income, specifically in rural areas. In general, the number of fatalities show much more variation from year to year during the summer months than during the winter months. This indicates that there are different factors that

influence the number of fatalities during winter and summertime. Summers include more leisure driving than winters, which are more affected by high gas prices and the economy. While the number of fatalities during the fall, winter and spring are quite similar, the number of fatalities differ considerably over the summers from year to year. Figure 8 shows that in the fall and winter months the range of the number of fatalities is about 20, while this range doubles over the spring and summer months to about 40.

Figure 8: Fatal Crashes by Month 2006 to 2009



Based on the first six months of reporting in 2009, Louisiana may see a slight increase in fatalities compared to 2008. The 2009 fatalities in Table 1 are based on the 12 months, June 2008 to May 2009. The June and July data shown in Figure 8 are still being revised, since not all fatalities have been reported for those two months. However, it can safely be predicted that the number of fatalities for 2009 will be lower than the number of fatalities for 2007. This may be partly due to the fact that the economy continues to have an effect on leisure driving.

Table 1: Crashes by Year

Year	Fatal Crashes	Fatalities	Driver Fatalities	Number of Vehicles Involved in Fatal Crashes	Property Damage Only Crashes (1,000)
1999	831	951	589	1,303	107
2000	846	938	618	1,304	108.7
2001	859	947	629	1,339	109.2
2002	818	914	590	1,305	114.9
2003	826	938	623	1,296	111.4
2004	886	992	648	1,450	113.4
2005	874	965	649	1,408	108.1
2006	890	987	688	1,385	112.5
2007	900	993	662	1,363	110.7
2008	818	913	593	1,212	110.6
2009	831	934	609	1,226	107.3
Difference					
1 Year	1.60%	2.30%	2.70%	1.20%	-3.00%
5 Year	-6.20%	-5.80%	-6.00%	-15.40%	-5.40%
Average	-4.90%	-3.70%	-6.00%	-10.10%	-3.40%

2. The Three Major Contributing Factors for Fatal Crashes

The three major leading causes for fatal crashes are (1) lack of seatbelt use, (2) alcohol, and (3) aggressive driving which is defined in this analysis as driving above the safe or posted speed limit, failure to yield, driving too closely, cutting in and improper passing, disregard of traffic control and careless operation. In 2008, 85% of all driver fatalities involved one of these three causes: 49% involved alcohol, 54% involved aggressive driving, and 59% involved lack of seat belt. In 22% of the driver fatalities, all three of these factors were involved.

2.1 Driving under the Influence of Alcohol (DUI)

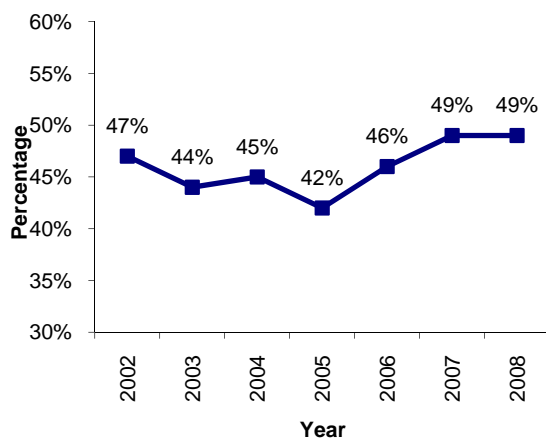
The cost of alcohol-related crashes to the citizens of Louisiana was 1.3 billion dollars in the year 2008. This is equivalent to a tax to every licensed driver in the state of Louisiana in the amount of \$454 per year. Driving under the influence of alcohol in this report includes all alcohol use, regardless of the BAC content. Since the alcohol content was unknown for 43.5% of the drivers in fatal crashes, NHTSA as well as LSU uses an algorithm to estimate alcohol use in crashes. The estimate is known to be 95% reliable.

This reported percentage of alcohol involvement does not indicate whether or not the driver was over the legal limit. The percentage of alcohol-related crashes and fatalities should only be used to look at trends rather than drawing any conclusion about the actual DWI, i.e., driving over the legal limit. There is no way to know the actual BAC level unless the driver has been tested and the test was reported to LSU's data base. Thus, in this report we will refer to DUI as driving under the influence of alcohol regardless of the BAC level, while we will refer to DWI as driving while intoxicated above the legal limit which varies by age.

2.1.1 Alcohol-Related Crashes

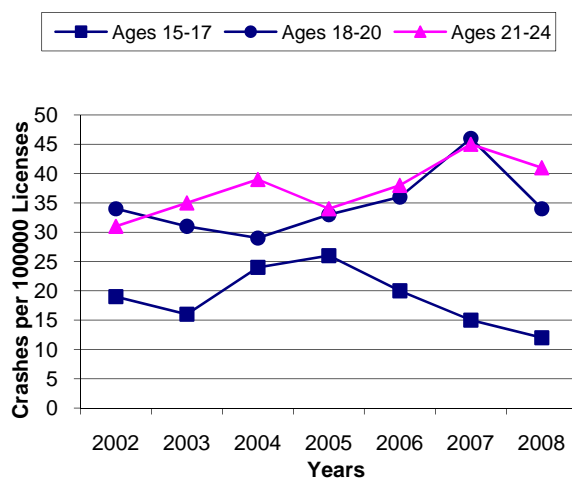
In 2008, Louisiana experienced a 7.8% decline in alcohol-related fatalities compared to

Figure 9: Alcohol-Related Fatalities as a Percent of Total Fatalities



2007, namely, from 487 to 449. However, since the overall number of fatalities also declined, the percentage of alcohol-related fatalities remained at a high level of 49%. The percentage of alcohol-related injury crashes declined by 3.5%, while the alcohol-related PDO crashes increased by 1.6%. Figure 9 shows that the percentage of alcohol-related fatalities has increased since 2005. Thus, although the number of alcohol-related crashes and fatalities declined, the percentage is still very high. This indicates that driving under the influence of alcohol remains a significant safety issue in Louisiana.

Figure 10: Youth Alcohol Fatal Crash Rates



As Figure 10 shows, the alcohol-related crash rate of youths, ages 15-17, had been declining for the past three years. However, the alcohol-related crash rate for youths ages

18-20 declined for the first time by 25% in 2008. In 2007, this age group made up 5% of the licensed drivers and was involved in 12% of alcohol-related crashes. In 2008, the percentage of youths ages 18-20 involved in alcohol-related crashes dropped to 8%.

An analysis of the percentage of alcohol-related crashes by month from January, 2006, to July 2009 shows an increase from January 2006 to June 2008 and a decline from July 2008 to July 2009. However, a word of caution is in order. Some of the BAC reports have not yet been reported for 2009. Thus the 2009 results could still change.

Figure 11: Trends in the Percentage of Alcohol-Related Fatalities

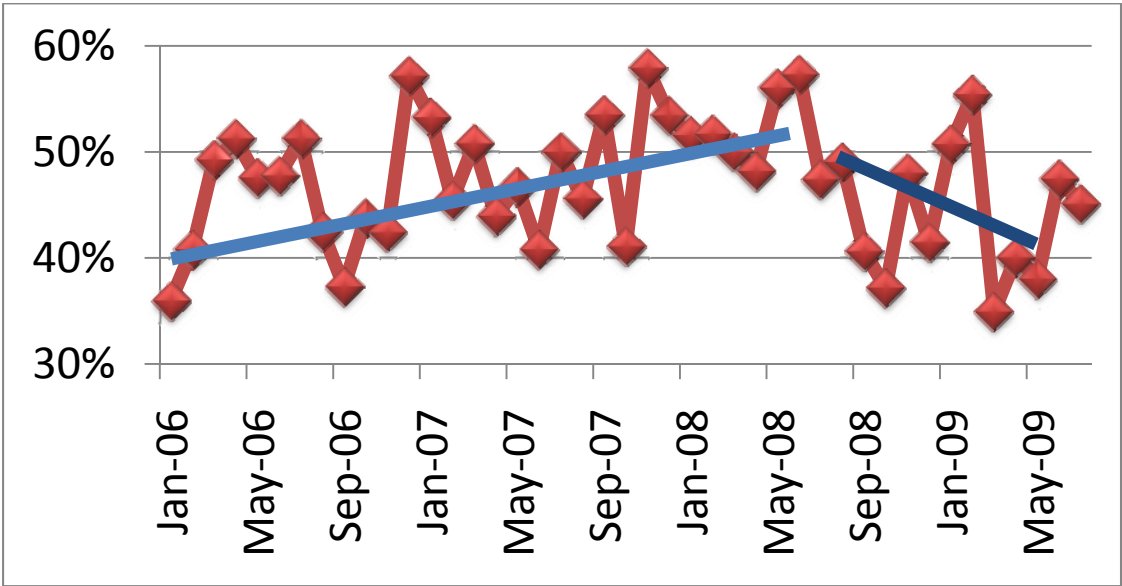


Figure 12: Fatal Crashes and Alcohol-Related Fatal Crashes in 2008

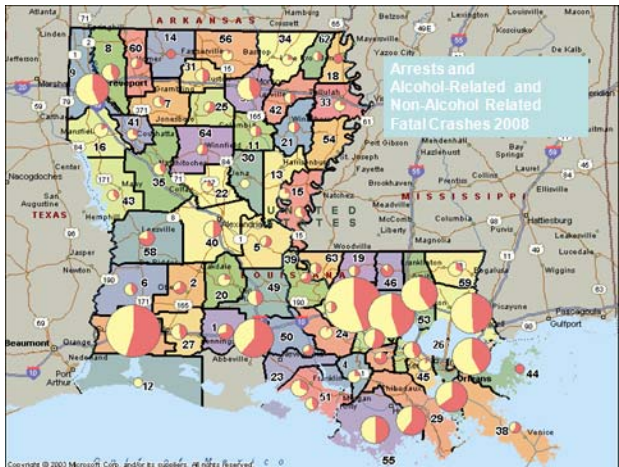


Figure 12 shows the number of fatalities and alcohol-related fatalities by Parish. The size of the pie is proportional to the total number of traffic fatalities in 2008 in each Parish. The red part of the pie indicates the fraction of alcohol-related fatalities. Table 2 shows the top 10

Parishes with the most alcohol-related crashes in 2008 and includes a comparison to 2007. Calcasieu, Lafourche and Livingston Parish had the largest increase in alcohol-related fatalities.

Table 2: Top Twelve Parishes with Most Alcohol-Related Fatal Crashes 2007 versus 2008

PARISH	2007	2008
CALCASIEU	19	24
LAFAYETTE	24	22
EAST BATON ROUGE	26	20
JEFFERSON	19	20
LAFOURCHE	11	18
LIVINGSTON	10	18
ST. TAMMANY	23	18
ORLEANS	16	15
CADDO	22	14
TANGIPAHOA	15	14
CALCASIEU	19	24
LAFAYETTE	24	22

2.1.2 DWI Enforcement

DWI enforcement plays a major role in the reduction of alcohol-related fatalities. In 2008, there were 24,736 DWI arrests with 11,047 adult DWI arrests, 7,947 refusals, 1,637 age 15-20 DWI, which makes a total of 20,631 refusals or over the legal limit. Many of the remaining arrests may have been legal or illegal-drug related. The number of arrests in 2008 was slightly below the 2007 level of 25,477, a decline of 3%. However, some agencies had much larger declines in DWI arrests than other agencies. (see Table A in the Appendix). Table 3 shows the DWI arrests by troop. While most troops had a considerable increase in DWI arrests, Troop C and E had declines of 25% and 32%, respectively.

Table 3: DWI Arrests in 2008 by Troop

Agency	Number of DWI Arrests 2008	Number of DWI Arrests 2007	% Change
LSP Troop L	2158	1523	42%
LSP Troop A	1685	1487	13%
LSP Troop I	1333	1252	6%
LSP Troop G	1119	871	28%
LSP Troop B	990	730	36%
LSP Troop C	890	1180	-25%
LSP Troop D	871	788	11%
LSP Troop F	796	569	40%
LSP Troop E	769	1132	-32%

It is not clear from Table 3 whether the reduced number of DWI's is related to an increase in DWI fatalities or whether it is a consequence of fewer DUI's on the roads in certain troops. To get a better understanding of the relationship between DWI arrests and DUI fatalities, we will look at a comparison between arrests and fatal DUI's in Table 4. In three of the troop areas (A, B and G) the number of arrests increased from 2007 to 2008 and the number of DUI fatalities decreased. In 3 troop areas (C, D, E) the number of arrests declined from 2007 to 2008 and the number of fatal DUI's increased. One troop area (I) had a decrease in the number of DWI arrests along with a decrease of fatal DUI's, and another troop area (L) had an increase in the number of arrests as well as an increase in DUI fatalities. (Note that DUI refers to alcohol present regardless of BAC content.)

Table 4: DWI Arrests and Fatal DUI Crashes

Troop	Arrests 2008	Arrests 2007	FTL CRSH 2008	FTL CRSH 2007	% Change in DWI arrests	% Change in DUI Fat.
A	4539	4157	70	78	9%	-10%
B	3102	3034	49	53	2%	-8%
C	1405	1845	40	27	-24%	48%
D	1676	1972	42	38	-15%	11%
E	2048	3134	55	49	-35%	12%
F	1854	2053	30	29	-10%	3%
G	3463	3367	33	43	3%	-23%
I	2693	3003	36	80	-10%	-55%
L	3956	2912	43	42	36%	2%
Total	24736	25477	398	439	-3%	-9%

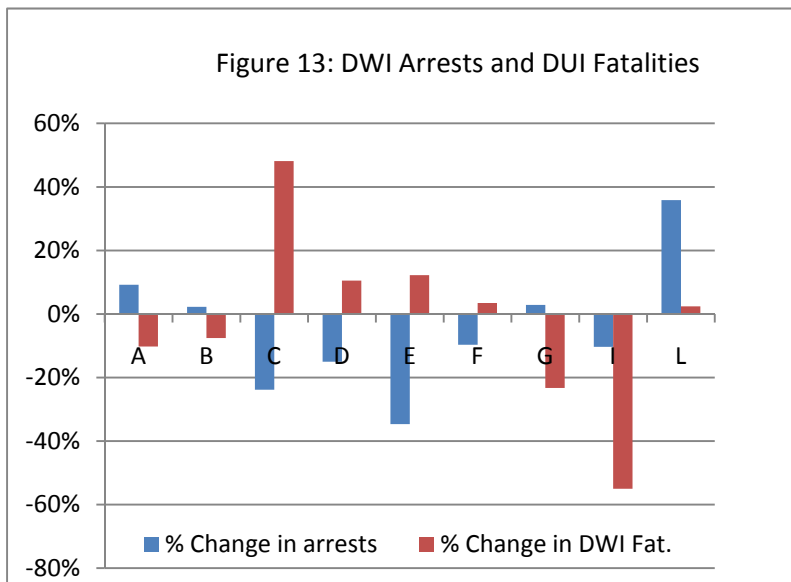


Figure 13 depicts the DWI arrests and fatal DUIs by troop. The data suggest that there is a relationship between the changes in DWI arrests and in DUI fatalities. Most troop areas which had the same or an increase in the number of DWI arrests also had a decline in DUI fatalities and vice versa. Most troops

which had a decline in the number of DWI arrests saw an increase in DUI fatalities. The exceptions are Troop I and L. This supports earlier findings that DWI arrests lead to a reduction in DUI fatalities. Note that this conclusion is independent of actual conviction rates. However, the arrest record also highlights a problem with the tracking, submitting and convictions reported to the OMV. A spot check of 15 drivers with more than 5 arrests showed that six of the 15 drivers had only 1st DWI, two had a 2nd DWI, and two had a 3rd DWI; the other five had no DWI's on their driving record. There are various reasons that could have lead to this lack of appropriate conviction records. However, because of the lack of an adequate tracking system no definite conclusion can be drawn about prosecution or conviction rates. Further studies are needed to better understand the affect of convictions and pretrial diversions on recidivism.

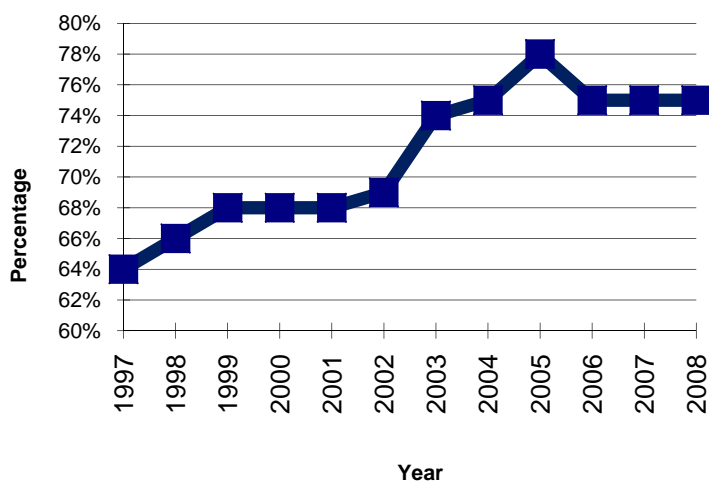
2.2 Occupant Protection

Occupant protection includes seat belt and helmets for motorcycles. Two sources of information were used to evaluate the effect of seat belt usage on the number of fatalities: survey data and observed seat belt usage in fatal crashes. In 2008 the cost of not wearing a seat belt as required by law resulted in costs to Louisiana citizens totaling 1.23 billion dollars, which is equivalent to a tax of \$432 for every licensed driver in 2008.

2.2.1 Seat Belt Use

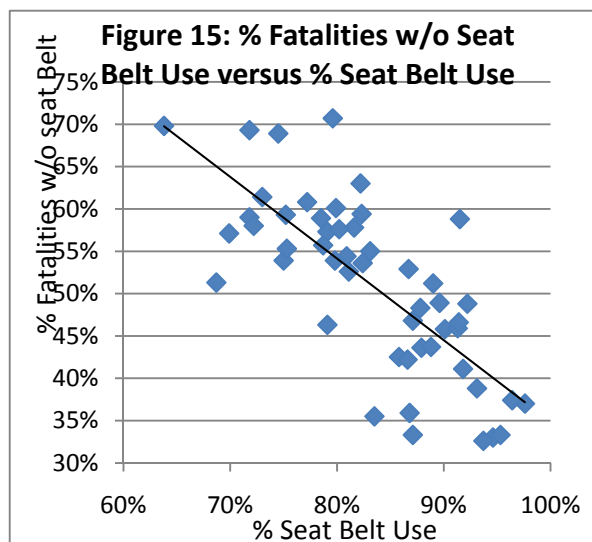
Figure 14 shows that the observed seat belt usage has been flat in 5 out of the past six years at about 75%. In fact, the

Figure 14: Front Seat Safety Belt Usage



2009 survey data show that seat belt usage is still at about the same level as in 2007. There is a correlation between seat belt usage and the percentage of drivers killed not wearing a seat belt. Although there are many confounding factors involved in fatal crashes, factors such as alcohol use, type of crash and vehicle type, to just name a few,

in general, the higher the seat belt usage, the lower the percentage of unbelted occupants among the people killed in crashes. The national statistics (depicted in Figure 15) show that there is a strong relationship between seat belt use among front-seat occupants and the percentage of unbelted occupants among the fatalities in



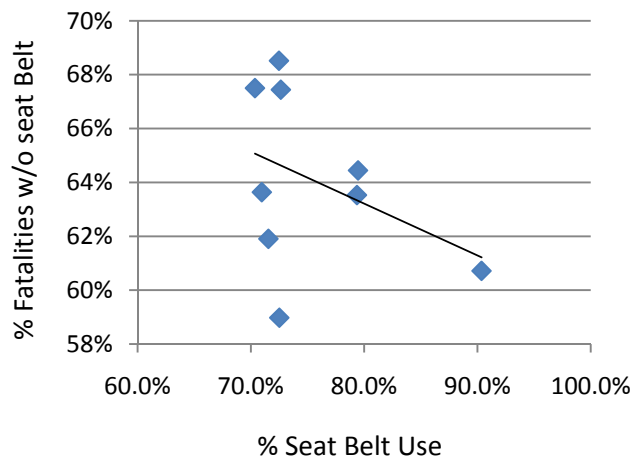
crashes. In no other cases are the risks associated with driving unbelted more obvious than in rollover crashes. In rollover crashes, 17% of the unbelted occupants in crashes died in 2008, but only 0.9% of the belted occupants in crashes died. Hence, the chance of being killed increases from less than one out of 100 to more than 1 out of six when not wearing a seat belt.

Table 5 depicts the survey results of seat belt usage and the observed seat belt usage in fatal crashes by troops.

Table 5: Seat Belt Usage by Troop

Troop	FATAL CRASH	DRIVER FATALITIES	SEAT BELT USED	SEATBELT NOT USED	SEAT BELT USE SURVEY	% SEATBELT NOT USED
A (EBR)	146	97	31	54	79.4%	64%
B (NO)	98	49	16	28	71.0%	64%
C (Houma)	72	32	11	17	90.4%	61%
D (Lake Charles)	81	45	16	23	72.5%	59%
E (Alexandria)	103	64	24	39	71.6%	62%
F (Monroe)	70	49	13	27	70.4%	68%
G (Shreveport)	79	51	14	29	72.6%	67%
I (Lafayette)	78	47	16	29	79.5%	64%
L (Hammond)	91	57	17	37	72.5%	69%

Figure 16: % Fatalities w/o Seat Belt Use versus % Seat Belt Use



Although Figure 16 shows a trend similar to the national trend depicted in Figure 15, it is not as strong because fewer data points are available and the data show less variation between troops, i.e., most seat belt usage data are clustered around 70%-80%. However, Troop C, which had the highest seat belt use, also had a relatively low percentage of occupant fatalities without seat belts. Figure 17 demonstrates the large variation

observed from year to year in the various troop areas and the difficulty of reaching the national seat belt usage average of 82%. Only Troop C had a seat belt usage rate above 80% and this level was only reached in two out of the past 5 years.

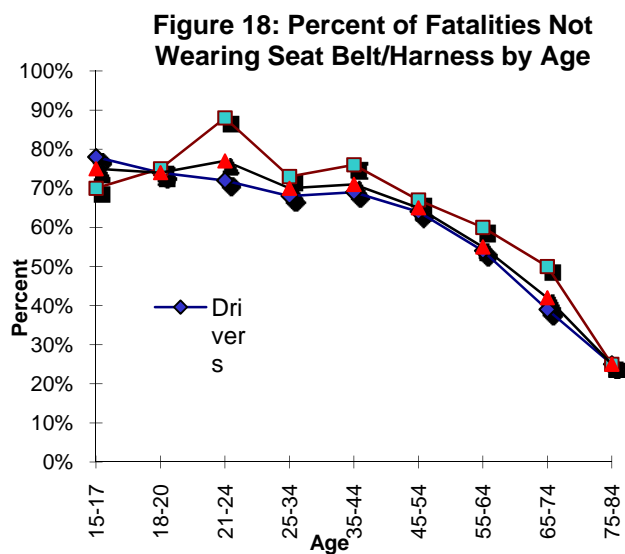
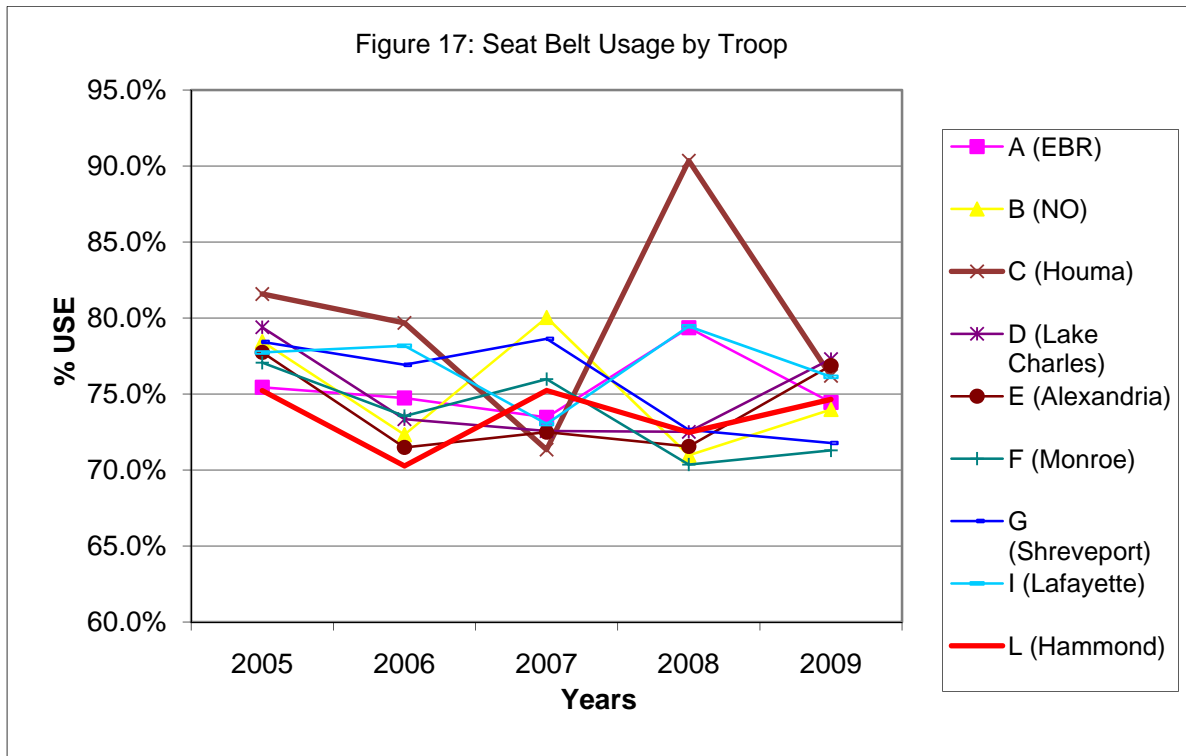


Figure 18 shows that in general seat belt usage increases with age. Occupants killed not wearing a seat belt approach a level close to 80% among youths ages 15-24.

Back Seat Belt Use

Louisiana law did not require seat belt use in back seats until August 2009. The analysis of the Louisiana crash data shows that in 2008, 58 occupants, ages 12 years

and older, were killed while riding in the back seat of a vehicle. Of the 58 killed occupants, only 17 were known to have worn a seat belt; 34 were known to not be wearing seat belts. In 2007, 58 occupants in back seats were killed, 42 of which were not wearing a seat belt. Many of these deaths could have been avoided if the occupants had used a seat belt. We estimate that in 2007 at least 22 lives could have been saved by preventing these rear seat occupants from being ejected. Table 6 shows the low seat belt usage for the eight troops based on surveys.

Table 6: Rear-Seat Safety Belt Survey: 2008

Region	Back-Seat Safety Belt Usage Survey results				
	%AUTO	%PKUP*	%SUV	%VAN	%Total
1 (NO)	22.5%	8.2%	25.9%	24.5%	21.6%
2 (EBR)	21.0%	6.9%	35.0%	25.7%	23.2%
3 (Houma)	43.1%	20.0%	45.4%	43.1%	38.3%
4 (Lafayette)	41.8%	17.0%	41.6%	50.3%	37.9%
5 (Lake Charles)	33.7%	21.6%	44.0%	38.1%	37.9%
6 (Alexandria)	30.1%	8.8%	25.3%	9.2%	29.9%
7 (Shreveport)	21.9%	10.2%	14.2%	25.7%	20.4%
8 (Monroe)	11.9%	17.4%	24.0%	14.2%	17.7%
Louisiana	27.3%	12.5%	31.3%	29.4%	27.2%

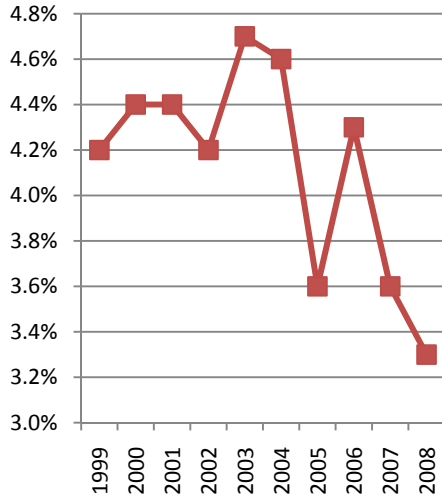
* Extended multi-seat pickup trucks

2.2.2 Motorcycle Helmet Use

The mandatory motorcycle helmet law passed in the fall of 2004 has saved 86 lives in the past four years which translates into over 100 million dollars saved just for the fatalities. There were also 177 fewer severe motorcycle injuries and 129 fewer moderate injuries due to the increased helmet use required by the law. When these injuries are included, the saving is over 270 million Dollars for the citizens of Louisiana. This amounts to a saving of \$96 for every licensed driver of Louisiana.

Data show that there were 80 motorcycle fatalities in 2008 which *decreased by*

Figure 19: Driver Fatalities per 100 Drivers in Crashes



9.1% from 2007. There were 3.3 deaths of motorcycle drivers for each 100 motorcycles in crashes for 2008 as compared to 3.6 deaths for each 100 motorcycles in crashes in 2007 and 4.7 deaths for each 100 motorcycles in crashes in 2004. On the average, the fatality percentage decreased from 4.4% before 2004 to 3.7% after 2004, which resulted in 17 fewer deaths in 2008 (see Figure 19).

Helmet use in motorcycle crashes has increased in 2008 to 88%, which was five percentage points higher than in 2007, namely 83%. However, there is an increase in riders not using

DOT approved helmets. For instance, in 2008, helmet use of motorcycle riders in fatal crashes was 76.3%, but only 62.5% of motorcycle riders killed were wearing DOT approved helmets.

2.3 Aggressive Driving

The third most important factor which is affecting the number of fatalities in crashes is aggressive driving. Table 7 depicts the percentage of drivers in fatal and injury crashes with the eight violations commonly related to aggressive driving.

Table 7: Percentage of Drivers in Fatal and Injury Crashes for Aggressive Driving

Type	Fatal	Injury	All	% Fatal	% Injury
Exceeding Stated Speed	28	205	465	6.0%	44%
Exceeding Safe Speed	17	379	1008	1.7%	38%
Failure to Yield	68	9091	27641	0.2%	33%
Following too closely	3	5851	21373	0.0%	27%
Driving left of center	57	607	1745	3.3%	35%
Cutting in/Improper Passing	10	610	3209	0.3%	19%
Disregard Traffic control	30	2531	6117	0.5%	41%
Careless Operation	299	15843	46861	0.6%	34%

For instance, there were 465 drivers in crashes who received an “exceeding stated speed” violation and 28 of those or 6% were in fatal crashes. If, in all cases, the violation accurately describes the behavior of the driver before the crash, then this information could be used to assess the severity of the effects of the violation. Exceeding stated

speed limits (6.0%), and driving left of center (3.3%) would be considered the most severe violations because they lead to the highest cases of fatalities. However, it seems unlikely that only 465 drivers in crashes had exceeded the stated speed. Many of the speeding violations may be included in “careless operation” for which there may be less of a burden of proof in court than for the violation exceeding “stated speed”, given that the speed has to be assessed by the investigating officer after the fact. Nevertheless, the reported cases seem to be the most obvious speed violations where proof was easily obtained. Drivers in injury crashes exceeding stated speed make up 44% of all drivers in crashes with this violation. Even so, the speed information in crashes is less than desirable; the data indicate that speed is a major contributing factor in fatal and injury crashes.

Drivers disregarding traffic controls make up 41% of drivers in all crashes with this violation. However, it is not clear from Table 7 what traffic controls were disregarded. Table 9 shows a breakdown of the most common types. The most common issue in fatal crashes with regard to aggressive driving seems to be failure to yield at stop signs and driving left of center when there was a yellow no passing lane. It is interesting to note that failure to yield at stop signs (56) has close to three times the frequency of red-light running violations (19) in fatal crashes. Note that other violations are included in the margins.

Table 8: Type of Disregard of Traffic Control in Fatal Crashes

	Stop Sign	Yield Sign	Red Signal	yellow No Passing Lane	White Dashed Line	Yellow Dashed Line	No Control	Total
Exceeding Stated Speed	1			9	4	8	6	28
Exceeding Safe Speed	1			5	3	2	4	17
Failure to Yield	27	5		8	3	4	4	68
Following too closely					1	1		3
Driving left of center				25	2	27	3	57
Cutting in/Improper Passing				2	3	3		10
Disregard Traffic control	14		9					30
Careless Operation	5	2	4	101	91	61	24	299
Total	56	9	19	352	331	234	97	1212

Table 9 depicts frequencies of violations and traffic controls for injury crashes. The number of violations (3,203) for “failure to yield” at stop signs is also a significant safety issue for injury crashes.

Table 9: Type of Disregard of Traffic Control in Injury Crashes

	Stop Sign	Yield Sign	Red Signal	yellow No Passing Lane	White Dashed Line	Yellow Dashed Line	No Control	Total
Exceeding Stated Speed	13	1	4	44	53	21		205
Exceeding Safe Speed	15	3	11	97	101	38		379
Failure to Yield	3203	424	375	829	883	317		9091
Following too closely	122	290	853	807	2138	426	3	5851
Driving left of center	6			287	58	165		607
Cutting in/Improper Passing	6	2	11	92	287	97		610
Disregard Traffic control	1022	13	1264	32	15	4	1	2531
Careless Operation	606	318	1305	3719	4594	2133	4	15843
Total	7174	1961	8709	13526	24072	7543	30	87949

Drivers who receive speeding violations tend to be younger than the average driver in a crash. While the average age of a driver in a crash is 37, the average age of a driver in a crash with an “over-stated speed” violation is 29.

3. Distractions

Distraction is also a major cause for crashes that has received national attention lately. In 2008 there were 29 fatalities associated with a distracted driver. Of those 29 fatalities crashes, 13 involved a driver using a cell phone. The figures below depict fatalities, injuries and crashes involving cell phone use from 2005 to 2009. The cost for these crashes is estimated to be 112 million dollars in 2008.

Figure 20: Fatalities-Cell Phones Use

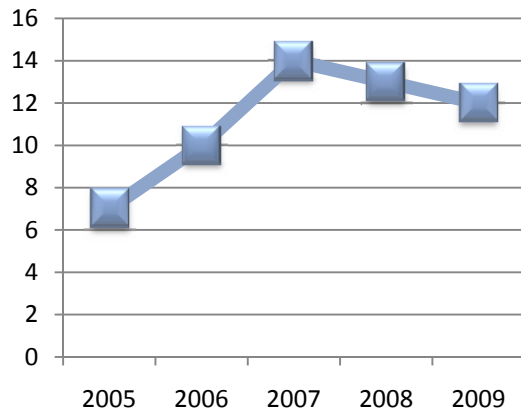


Figure 21: Injuries-Cell Phones Use

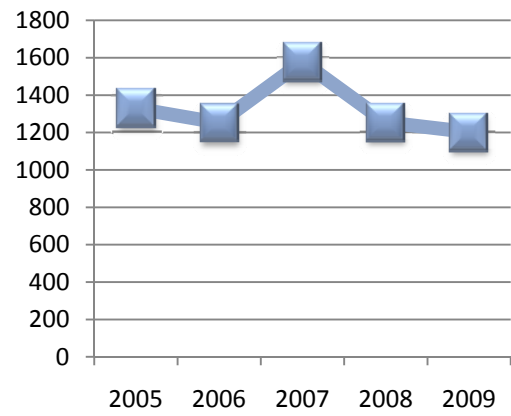


Figure 22: Crashes-Cell Phones Use

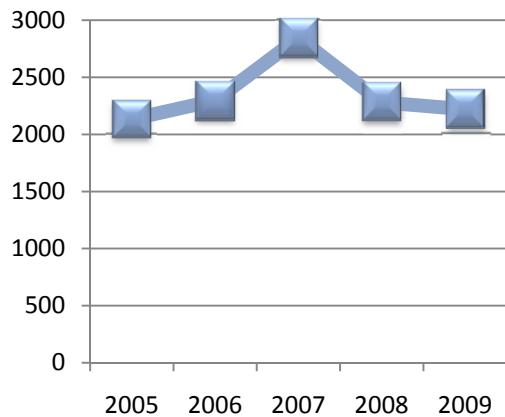
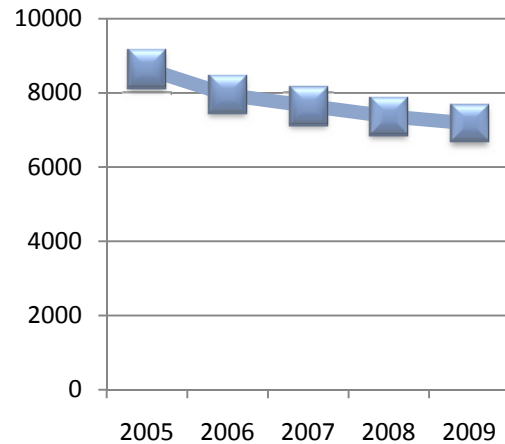


Figure 23: Crashes-Distractions



3. Conclusions and Recommendations

Unfortunately, there is no silver bullet that permits us to drastically reduce the cost to society associated with vehicle crashes. However, there are three main contributing factors for fatal and injury crashes and all involve passing laws and increasing enforcement:

- Alcohol
- Seat belt Use
- Aggressive driving

This does not imply that other programs that deal with road safety, vehicle safety, railway crossing safety, pedestrian safety, bicycle safety, etc., should be neglected. However, all too often the press, the public and legislators concentrate on issues that are not the main driving force behind the high number of fatal and injury crashes in Louisiana. Our efforts should focus on bringing more civility and courtesy to Louisiana roads, encouraging drivers and passengers to abide by the laws and use safety devices. Freedom such as not using occupant protection devices result in a cost that is equivalent to a tax on all citizens of the state, not only the injured person.

Enforcement has been proven to be an effective measure to reduce alcohol-related crashes and to increase seat belt use. Although conviction rates are relatively low in Louisiana and don't seem to discourage repeat offenders from drinking and driving, an argument could be made that arrests for drunk driving will still discourage the "reasonable" person to not drink excessively and drive. Stepping up enforcement significantly will result in news media coverage without paying for advertizing.

Appendix A:

Table A1: DWI Arrests by Agency with More than one Arrest in 2008

Agency	Number of Arrests 2008	Number of Arrests 2007	% Change
TOTAL	24736	25477	-3%
LSP Troop L	2158	1523	42%
LSP Troop A	1685	1487	13%
Baton Rouge P.D.	1466	1239	18%
LSP Troop I	1333	1252	6%
LSP Troop G	1119	871	28%
Shreveport P.D.	1006	1152	-13%
LSP Troop B	990	730	36%
New Orleans P.D.	896	1175	-24%
LSP Troop C	890	1180	-25%
LSP Troop D	871	788	11%
LSP Troop F	796	569	40%
LSP Troop E	769	1132	-32%
St. Tammany S.O.	738	398	85%
Bossier City P.D.	345	247	40%
Caddo S.O.	335	274	22%
Causeway P.D.	331	318	4%
Alexandria P.D.	316	495	-36%
Calcasieu S.O.	287	282	2%
West Monroe P.D.	248	265	-6%
Livingston S.O.	228	188	21%
Kenner P.D.	223	169	32%
Lafayette P.D.	195	220	-11%
Fort Polk M.P.	191	265	-28%
Jefferson S.O.	188	138	36%
Lafourche S.O.	185	185	0%
Rapides S.O.	142	193	-26%
Slidell P.D.	139	145	-4%
Wildlife & Fisheries	135	182	-26%
Lake Charles P.D.	134	233	-42%
St. Charles S.O.	132	127	4%
Hammond P.D.	130	203	-36%
Ascension S.O.	128	141	-9%
Bossier S.O.	125	218	-43%
Iberia S.O.	125	160	-22%
Ouachita S.O.	124	170	-27%
Denham Springs P.D.	122	132	-8%
Minden P.D.	121	121	0%

Harahan P.D.	105	41	156%
Opelousas P.D.	104	97	7%
Lincoln S.O.	104	86	21%
Covington P.D.	102	58	76%
St. John S.O.	99	146	-32%
Mandeville P.D.	98	98	0%
St. Landry S.O.	97	119	-18%
Abbeville P.D.	97	107	-9%
Houma P.D.	96	143	-33%
Gonzales P.D.	95	141	-33%
Sulphur P.D.	87	96	-9%
St. Mary S.O.	83	50	66%
Franklin S.O.	82	190	-57%
East Baton Rouge S.O.	81	66	23%
St. Bernard S.O.	81	57	42%
Monroe P.D.	80	137	-42%
LSU P.D.	78	40	95%
Terrebonne S.O.	77	96	-20%
Eunice P.D.	75	71	6%
Crescent City Connection	72	97	-26%
Leesville P.D.	66	157	-58%
Golden Meadow P.D.	66	74	-11%
Southeastern LA University P.D.	63	15	320%
Webster S.O.	62	108	-43%
Tangipahoa S.O.	62	94	-34%
Northeast LA University P.D.	62	68	-9%
Plaquemines S.O.	60	84	-29%
DeSoto S.O.	58	66	-12%
Bogalusa P.D.	58	26	123%
Pineville P.D.	55	96	-43%
Vermilion S.O.	54	43	26%
Zachary P.D.	53	80	-34%
Natchitoches P.D.	51	78	-35%
Madisonville P.D.	50	13	285%
Lafayette S.O.	49	110	-55%
Union S.O.	47	72	-35%
Iberville S.O.	47	51	-8%
Claiborne S.O.	45	38	18%
Assumption S.O.	43	68	-37%
U.S.L. P.D.	42	33	27%
Greenwood P.D.	41	70	-41%
Franklin P.D.	41	42	-2%
East Carroll S.O.	41	41	0%
Barksdale AFB	40	23	74%
Cameron S.O.	39	110	-65%

Thibodaux P.D.	39	77	-49%
St. James S.O.	39	29	34%
West Baton Rouge S.O.	39	28	39%
Washington S.O.	39	15	160%
Rayne P.D.	38	113	-66%
Olla P.D.	38	68	-44%
East Feliciana S.O.	38	64	-41%
Jackson S.O.	38	62	-39%
Allen S.O.	36	75	-52%
DeRidder P.D.	35	94	-63%
Sabine S.O.	35	50	-30%
Ruston P.D.	34	70	-51%
Westlake P.D.	33	67	-51%
DPS Police	33	39	-15%
West Feliciana S.O.	33	26	27%
LSP TESS	33	10	230%
Natchitoches S.O.	31	30	3%
LSP HQ	31	27	15%
Morgan City P.D.	30	56	-46%
Sorrento P.D.	30	51	-41%
LaSalle S.O.	30	33	-9%
Walker P.D.	30	33	-9%
Franklinton P.D.	30	21	43%
New Llano P.D.	28	69	-59%
Marksville P.D.	28	49	-43%
Patterson P.D.	28	48	-42%
Broussard P.D.	28	38	-26%
Crowley P.D.	28	21	33%
Haynesville P.D.	28	13	115%
Baker P.D.	27	37	-27%
Berwick P.D.	25	43	-42%
Vinton P.D.	23	32	-28%
Springhill P.D.	23	22	5%
Orleans Levee Board	23	21	10%
Beauregard S.O.	21	36	-42%
Madison S.O.	20	25	-20%
Plaquemine P.D.	20	2	900%
Haughton P.D.	16	36	-56%
Westwego P.D.	16	24	-33%
Bunkie P.D.	16	13	23%
Pearl River P.D.	16	11	45%
French Settlement P.D.	16	9	78%
Farmerville P.D.	15	47	-68%
Vidalia P.D.	15	37	-59%
Ville Platte P.D.	15	23	-35%

Jonesville P.D.	15	16	-6%
Bienville S.O.	15	12	25%
Plain Dealing P.D.	15	1	1400%
Caldwell S.O.	14	33	-58%
Gretna P.D.	14	28	-50%
Livingston P.D.	14	11	27%
Franklinton P.D.	30	21	43%
New Llano P.D.	28	69	-59%
Marksville P.D.	28	49	-43%
Patterson P.D.	28	48	-42%
Broussard P.D.	28	38	-26%
Crowley P.D.	28	21	33%
Haynesville P.D.	28	13	115%
Baker P.D.	27	37	-27%
Berwick P.D.	25	43	-42%
Vinton P.D.	23	32	-28%
Springhill P.D.	23	22	5%
Orleans Levee Board	23	21	10%
Beauregard S.O.	21	36	-42%
Madison S.O.	20	25	-20%
Plaquemine P.D.	20	2	900%
Haughton P.D.	16	36	-56%
Westwego P.D.	16	24	-33%
Bunkie P.D.	16	13	23%
Pearl River P.D.	16	11	45%
French Settlement P.D.	16	9	78%
Farmerville P.D.	15	47	-68%
Vidalia P.D.	15	37	-59%
Ville Platte P.D.	15	23	-35%
Jonesville P.D.	15	16	-6%
Bienville S.O.	15	12	25%
Plain Dealing P.D.	15	1	1400%
Caldwell S.O.	14	33	-58%
Gretna P.D.	14	28	-50%
Livingston P.D.	14	11	27%
Amite P.D.	14	10	40%
St. Martinsville P.D.	14	9	56%
St. Martin S.O.	13	36	-64%
Bastrop P.D.	13	29	-55%
Scott P.D.	13	21	-38%
Benton P.D.	13	19	-32%
Gramercy P.D.	13	17	-24%
Acadia S.O.	13	14	-7%
Richland S.O.	13	10	30%
LSP TESS/Weights & Standards	13	7	86%

Sterling P.D.	12	20	-40%
West Carroll S.O.	12	15	-20%
Lafourche Parish Port Commission	12	9	33%
Port Vincent P.D.	12	3	300%
Jeanerette P.D.	11	46	-76%
Morehouse S.O.	11	23	-52%
Kinder P.D.	11	15	-27%
Tensas S.O.	11	4	175%
Winnfield P.D.	10	22	-55%
Cullen P.D.	10	17	-41%
Oak Grove P.D.	10	16	-38%
Ponchatoula P.D.	10	16	-38%
Ferriday P.D.	9	25	-64%
Winnsboro P.D.	9	20	-55%
Elton P.D.	9	12	-25%
New Roads P.D.	9	8	13%
Pointe Coupee S.O.	9	3	200%
St. Francisville P.D.	9	3	200%
Jennings P.D.	8	42	-81%
McNeese University P.D.	8	8	0%
LA Tech P.D.	8	5	60%
Zwolle P.D.	8	5	60%
DeQuincy P.D.	8	3	167%
Red River S.O.	8	3	167%
Ringgold P.D.	8	3	167%
Vernon S.O.	7	13	-46%
Homer P.D.	7	10	-30%
Welsh P.D.	7	10	-30%
Mamou P.D.	7	8	-13%
Many P.D.	6	19	-68%
Carencro P.D.	6	17	-65%
Columbia P.D.	6	14	-57%
Naval Air Station	6	8	-25%
Kaplan P.D.	6	7	-14%
Sunset P.D.	6	7	-14%
Avoyelles S.O.	6	1	500%
Springfield P.D.	6	1	500%
Oakdale P.D.	5	32	-84%
Lake Arthur P.D.	5	23	-78%
Jena P.D.	5	14	-64%
Youngsville P.D.	5	14	-64%
Orleans S.O.	5	4	25%
Addis P.D.	5	3	67%
Grambling State University	5	3	67%
Krotz Springs P.D.	5	3	67%

Northwest Crime Lab	5	1	400%
Concordia S.O.	4	17	-76%
Livonia P.D.	4	9	-56%
Delhi P.D.	4	8	-50%
Richwood P.D.	4	4	0%
Sicily Island P.D.	4	4	0%
Blanchard P.D.	4	2	100%
Tallulah P.D.	4	2	100%
LeCompte P.D.	3	24	-88%
Jackson P.D.	3	11	-73%
Mansfield P.D.	3	10	-70%
Catahoula S.O.	3	9	-67%
Grand Couteau P.D.	3	3	0%
Jonesboro P.D.	3	1	200%
Killian P.D.	3	1	200%
St. Joseph P.D.	3	1	200%
Oil City P.D.	3	0	
Brusly P.D.	2	12	-83%
Port Allen P.D.	2	12	-83%
Bernice P.D.	2	6	-67%
Hodge P.D.	2	4	-50%
Lockport P.D.	2	4	-50%
Church Point P.D.	2	3	-33%
Mansura P.D.	2	3	-33%
Folsom P.D.	2	2	0%
LSP Region I	2	2	0%
Basile P.D.	2	1	100%
LA State Capital P.D.	2	1	100%
Mangham P.D.	2	1	100%
Napoleonville P.D.	2	1	100%
Park Services Police	2	1	100%
Independence P.D.	2	0	

Table A2: DWI Arrests by Parish 2007 and 2008

Parish	Number of Arrests 2008	Number of Arrests 2007	% Change
TOTAL	24736	25477	-3%
ST. TAMMANY	2349	1789	31%
EAST BATON ROUGE	2183	1805	21%
CADDO	1525	1577	-3%
JEFFERSON	1413	1066	33%
CALCASIEU	1277	1276	0%
TANGIPAHOA	1177	926	27%
OUACHITA	1005	1001	0%
ORLEANS	993	1311	-24%
BOSSIER	980	862	14%
LIVINGSTON	884	839	5%
ASCENSION	753	779	-3%
RAPIDES	721	1230	-41%
LAFAYETTE	710	687	3%
LAFOURCHE	668	843	-21%
TERREBONNE	635	867	-27%
ST. LANDRY	551	567	-3%
VERNON	531	742	-28%
WEBSTER	348	399	-13%
VERMILION	302	304	-1%
IBERIA	293	355	-17%
DESOTO	286	237	21%
ST. MARY	286	360	-21%
WEST BATON ROUGE	275	280	-2%
WASHINGTON	269	104	159%
ST. JOHN THE BAPTIST	245	273	-10%
LINCOLN	243	250	-3%
NATCHITOCHES	228	206	11%
ST. CHARLES	221	201	10%
ACADIA	196	332	-41%
ST. MARTIN	195	291	-33%
AVOYELLES	165	315	-48%
ST. BERNARD	162	71	128%

ST. HELENA	161	93	73%
EVANGELINE	160	107	50%
JEFFERSON DAVIS	159	244	-35%
CLAIBORNE	144	118	22%
ST. JAMES	129	116	11%
RICHLAND	112	92	22%
LASALLE	108	162	-33%
BEAUREGARD	107	193	-45%
SABINE	106	145	-27%
BIENVILLE	104	121	-14%
ASSUMPTION	102	135	-24%
FRANKLIN	99	223	-56%
IBERVILLE	97	94	3%
WEST FELICIANA	94	72	31%
ALLEN	91	144	-37%
MADISON	91	86	6%
UNION	78	136	-43%
RED RIVER	76	53	43%
EAST FELICIANA	68	108	-37%
PLAQUEMINES	68	112	-39%
CONCORDIA	62	132	-53%
MOREHOUSE	56	74	-24%
POINTE COUPEE	56	64	-13%
JACKSON	52	70	-26%
WINN	49	83	-41%
GRANT	48	73	-34%
CAMERON	42	115	-63%
WEST CARROLL	40	38	5%
CALDWELL	32	38	-16%
CATAHOULA	30	46	-35%
EAST CARROLL	28	26	8%
TENSAS	18	19	-5%